

# FACT SHEET

### VirginiaDOT.org

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August 3, 2004

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#### VDOT FACILITY HURRICANE CLOSURE CHECKLIST

#### What does this plan mean?

VDOT has worked with the Virginia Department of Emergency Management and the localities in Hampton Roads to develop a set of guidelines and procedures governing the closing of Hampton Roads area bridges and tunnels in the event of a hurricane or tropical storm. These guidelines will clarify the factors considered by VDOT staff when determining the most prudent time to close area bridges and tunnels during severe weather.

The plan also outlines the procedures that VDOT will follow as a storm approaches. This plan will ensure that facility managers are provided enough time to safely perform closures and evacuate facilities during these types of events. Closure timing will be based on winds, storm surge, rain bands, and actual conditions at the facility

Is this plan being put in place because the Midtown Tunnel flooded during Hurricane Isabel? The flooding of the Midtown Tunnel during Hurricane Isabel made VDOT realize that we needed to reevaluate the procedures we have in place for closing VDOT facilities during severe weather. This checklist is an effort to clarify the factors that each facility manager should take into account when deciding to close their facilities during hurricanes or tropical storms.

The procedures will also improve communication between the facilities and the statewide emergency management resources in Richmond.

#### What are the triggers that will close the tunnels?

There are two different thresholds that will trigger facility closures.

On the Midtown Tunnel, a closure decision will be based upon the onset of tropical force winds (39 miles per hour) when a hurricane is tracking toward Virginia and conditions are expected to get worse.

For the Monitor Merrimac Bridge-Tunnel, the Hampton Roads Bridge-Tunnel, the James River Bridge, the Coleman Bridge, the Downtown Tunnel and the High Rise Bridge, closure decisions will be based on the onset of 45 mile per hour winds when a storm is heading toward Virginia and conditions are predicted to get worse.

Closure timing will be based on winds, storm surge, rain bands and actual conditions at the facility. Each facility manager will monitor the conditions at their facility and make the final decision about closing. The procedures put into place with this plan will help to provide them with all of the information and support they need to conduct a safe and efficient closing operation.

## Won't the closure of tunnels impede evacuation attempts for motorists trying to get out of the way of a storm?

At the prescribed thresholds, motorists should already be off the road and in permanent shelter. Any formal evacuation of the region will be completed before storm force winds reach the thresholds in place to begin the closures. These closures will be put in place at the last possible timeframe where the operations can be completed safety and crews can take appropriate shelter.

VDOT will communicate the approximate timing of closures and any possible alternate routes using the media and VDOT resources such as www.VirginaDOT.org, highway advisory radio, electronic message signs and other technology. All efforts will be made to notify the public of these closures prior to their implementation.

#### What will motorists do if VDOT closes down all of the bridges and tunnels?

These closure plans will not be implemented until the height of the storm when all formal evacuations are already complete. The thresholds set to instigate closures of these facilities are high enough that any driving during this part of a storm would be unsafe. Motorists should already be off the roads and in permanent shelter before these closures would take place. Citizens should not be on the roadways when storm winds and surges reach these levels.

#### Why does the plan allow for each facility to make their own decision on closures?

Although the plan outlines the meteorological factors that will trigger the final stage of closure plans, conditions at each individual facility may vary. VDOT will communicate all weather information to the facilities as storms approach, but the facility managers are the best judges of actual conditions at their facility. This will ensure that these facilities remain open to traffic as long as it is safe to do so.

#### When does the plan say VDOT crews will take shelter during the storm?

VDOT will cease routine operations prior to the onset of 45 mile per hour winds. This will allow VDOT time to ensure the safety of its personnel. Crews will then take cover to stage resources and plan for the recovery after the storm. This will ensure that VDOT resources are available to response to downed trees, roadway damage or any other issue that would impede a return to normal traffic flow following the storm.

#### Would this plan have helped avoid the flooding in the Midtown Tunnel on July 25?

These new procedures are for severe hurricane or tropical storm type weather events. Although the short-term restriction of traffic from the Midtown Tunnel last weekend was an inconvenience, it was not a similar situation to a Hurricane event.

In last weekend's incident, the large volume of rain that fell in the Norfolk area caused storm water to flow down the tunnel entrance and collect in the lowest point of the tunnel. Approximately 7 inches of water collected there causing a safety concern. Crews restricted traffic from the tunnel for about one hour as the pumps in place to handle this type of event

removed the water from the tunnel. One lane of traffic was flowing through the tunnel within an hour.

These closing plans are designed for the most severe type of weather events that threaten to completely flood the tunnels and most certainly cause life-threatening safety concerns for our crews and motorists. They will only be implemented in the most severe Hurricane-like weather conditions.

## If this plan had been in place at the time, would it have prevented the flooding of the Midtown Tunnel during Hurricane Isabel?

These procedures would have provided the tunnel facility manager with the approximate time when the winds would have reached 39 miles per hour. The facility manager would still have been tasked with making the decision on the actual closure of the facility. Although this current plan would have given the facility manager more information about when these wind speeds would have reached his facility, it is unlikely that this would have completely prevented the flooding of the tunnel.

Crews at the facility took action as soon as they realized city storm water was beginning to enter the tunnel during Isabel. However, the water began rising much faster than any normal indication would have dictated including the flood warning sensors located near the tunnel. Crews did attempt to close the floodgates but had issue with removing a weld on the plate covering the receptacle in the pavement. This mechanical problem was what prevented the floodgate closure.